

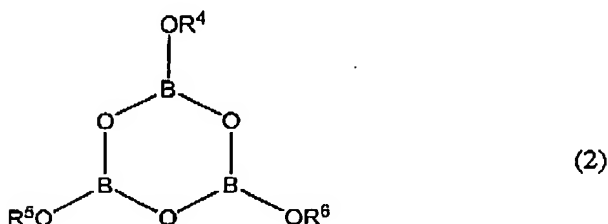
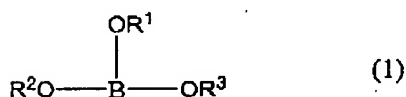
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Application Serial No. 10/525,902
Reply to Office Action of July 17, 2007PATENT
Docket: CU-4101**Amendments to the Claims**

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) A lubricating oil composition for an internal combustion engine, which comprises:
a lubricant base oil comprising a mineral oil and/or a synthetic oil wherein a total aromatic content and sulfur content in the lubricating base oil are adjusted to 10% by mass or less and 0.05% by mass or less, respectively; [(.)]
(A) 0.001 to 0.5% by mass of an ester of boric acid in terms of boron element therein, represented by the following general formula (1) or (2)



wherein in the general formula (1) and (2), R¹ to R⁶ each may be same or different, each independently represents a hydrocarbon group having 1 to 30 carbon atoms; and (B) 0.01 to 5% by mass of an ashless antioxidant, wherein said composition contains substantially no metal salts of dithiophosphoric acid and has a sulfur content of 0.2% by mass or less, each the percentage of (A), (B) and the sulfur content being based on a total mass of the composition.

2. (cancelled)
3. (currently amended) The lubricating oil composition for an internal combustion engine according to claim 1 [(or 2)], which comprises (C) 0.005 to 1% by

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mass of metal-based detergent in terms of metal element therein, based on the total mass of the composition.

4. (currently amended) The lubricating oil composition for an internal combustion engine according to claim 3, wherein ~~[[a]]~~ the metal ratio of the component(C) is 3 or less.

5. (currently amended) The lubricating oil composition for an internal combustion engine according to claim 3 ~~[[or 4]]~~, wherein the component (C) is a metal-based detergent which contains substantially no sulfur.

6. (currently amended) The lubricating oil composition for an internal combustion engine according to ~~any one of claims~~ claim 1 ~~[[to 5]]~~, which comprises (D) 0.05 to 0.4% by mass of an ashless dispersant in terms of nitrogen element therein, based on the total mass of the composition.

7. (currently amended) The lubricating oil composition for an internal combustion engine according to claim 1 ~~any one of claims 1 to 6~~, which contains substantially no phosphorous, and has a sulfur content of 0.05% by mass or less, based on the total mass of the composition.

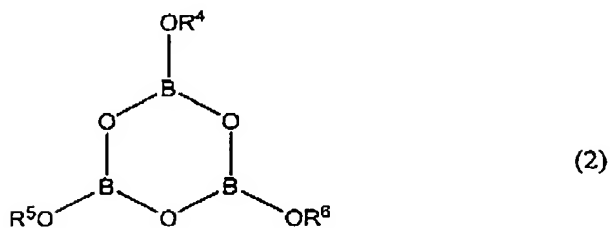
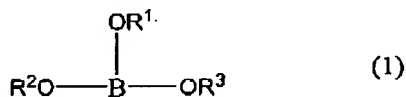
8. (currently amended) The lubricating oil composition for an internal combustion engine according to claim 1 ~~any one of claims 1 to 7~~, which is for an internal combustion engine using a fuel having a sulfur content of 50 ppm by mass or less.

9. (currently amended) A method for lubricating a valve train of an internal combustion engine ~~comprising: -using~~ a step of preparing a lubricating oil composition which comprises a lubricant base oil comprising a mineral oil and/or a synthetic oil wherein a total aromatic content and a sulfur content in the lubricating base oil are adjusted to 10% by mass or less and 0.05% by mass or less, respectively, (A) 0.001 to 0.5% by mass of an ester of boric acid in terms of boron element therein, represented by the following general formula

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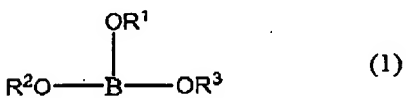
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(1) or (2)



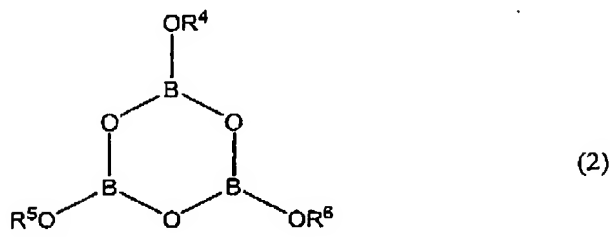
wherein in the general formula (1) and (2), R¹ to R⁶ each may be same or different, each independently represents a hydrocarbon group having 1 to 30 carbon atoms; and (B) 0.01 to 5% by mass of an ashless antioxidant, wherein said composition contains substantially no metal salts of dithiophosphoric acid and has a sulfur content of 0.2% by mass or less, [[each]] the percentage of (A), (B), and the sulfur content being based on a total mass of the composition; and a step of using the lubricating oil composition in lubrication of a valve train of an internal combustion engine.

10. (currently amended) A method for improving long drain performance of a lubricating oil composition for an internal combustion engine comprising: [[.]] a step of adding, providing a into a lubricating oil composition which comprises a lubricant base oil comprising a mineral oil and/or a synthetic oil wherein a total aromatic content and a sulfur content in the lubricating base oil are adjusted to 10% by mass or less and 0.05% by mass or less, respectively, (A) 0.001 to 0.5% by mass of an ester of boric acid in terms of boron element therein represented by the following general formula (1) or (2)



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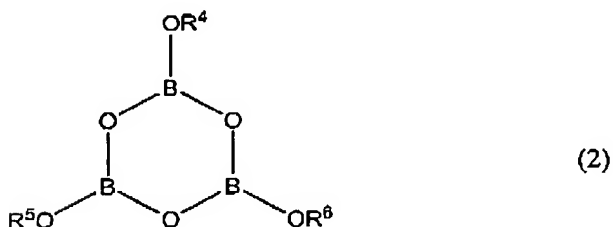
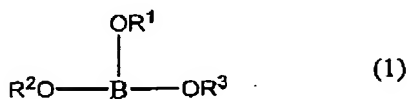


wherein in the general formula (1) and (2), R¹ to R⁶ each may be same or different, each independently represents a hydrocarbon group having 1 to 30 carbon atoms; and a step of adding (B) 0.01 to 5% by mass of an ashless antioxidant, wherein said composition contains substantially no metal salts of dithiophosphoric acid and has a sulfur content of 0.2% by mass or less, [[each]] the percentage of (A) and (B) being based on a total mass of the composition; consequently providing composition containing substantially no metal salts of dithiophosphoric acid and having a sulfur content of 0.2% by mass or less, the percentage of the sulfur content being based on a total mass of the composition.

11. (new) A lubricating oil composition for an internal combustion engine, which comprises:

a lubricant base oil comprising a mineral oil and/or a synthetic oil wherein a total aromatic content and sulfur content in the lubricating base oil are adjusted to 10% by mass or less and 0.05% by mass or less, respectively;

(B) 0.001 to 0.5% by mass of an ester of boric acid in terms of boron element therein, represented by the following general formula (1) or (2)



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wherein in the general formula (1) and (2), R^1 to R^6 each may be same or different, each independently represents a hydrocarbon group having 1 to 30 carbon atoms;
(B) 0.01 to 5% by mass of an ashless antioxidant;
(C) 0.005 to 1 % by mass of metal-based detergent in terms of metal element therein; and
(D) 0.05 to 0.4% by mass of an ashless dispersant in terms of nitrogen element therein,
wherein said composition contains substantially no metal salts of dithiophosphoric acid and has a sulfur content of 0.2% by mass or less, the percentage of (A)-(D) and the sulfur content being based on a total mass of the composition.

12. (new) The lubricating oil composition for an internal combustion engine, according to claim 11, wherein the metal ratio of the component(C) is 3 or less.

13. (new) The lubricating oil composition for an internal combustion engine according to claim 11, wherein the component (C) is a metal-based detergent which contains substantially no sulfur.

14. (new) The lubricating oil composition for an internal combustion engine according to claim 11, which contains substantially no phosphorous, and has a sulfur content of 0.05% by mass or less, based on the total mass of the composition.

15. (new) The lubricating oil composition for an internal combustion engine according to claim 11, which is for an internal combustion engine using a fuel having a sulfur content of 50 ppm by mass or less.